

# **Vehicle Standard (Australian Design Rule 38/03 – Trailer Brake Systems) 2007**

Made under section 7 of the Motor Vehicle Standards Act 1989

## **Explanatory Statement**

Issued by the authority of the Minister for Transport and  
Regional Service

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## **1. LEGISLATIVE CONTEXT**

*Vehicle Standard (Australian Design Rule 38/03 — Trailer Brake Systems) 2007* is made under the *Motor Vehicle Standards Act 1989* (the Act). The Act enables the Australian Government to establish nationally uniform standards for road vehicles when they are first supplied to the market in Australia. The Act applies to such vehicles whether they are manufactured in Australia or are imported as new or second hand vehicles.

The making of the vehicle standards necessary for the Act's effective operation is provided for in section 7 which empowers the Minister to "determine vehicle standards for road vehicles or vehicle components".

Australian Design Rule (ADR) 38/03 is being made to replace ADR 38/02, which was originally determined in *Road Vehicle (National Standards) Determination 3 of 1996*, amended in two subsequent Determinations and then remade to comply with the requirements of the *Legislative Instruments Act 2003* (LIA). It is necessary to make a new standard rather than an amendment as the text as last determined has been substantially altered.

*Vehicle Standard (Australian Design Rule 38/03 – Trailer Brake Systems) 2007* is being made under the Australian Design Rule review program as part of a heavy vehicle package comprising ADRs 35/01, 38/02 and 62/01. The prime objectives of the review are to preserve or improve Australia's road safety performance while minimising compliance costs to industry, harmonising with international standards where possible, and reflecting the best current operating practices in industry.

## **2. CONTENT AND EFFECT OF ADR 38/03 - TRAILER BRAKE SYSTEMS**

### **2.1. Overview of the ADR**

The function of this vehicle standard is to specify requirements for braking of trailers under both normal and emergency conditions.

### **2.2 Effect of the ADR**

This vehicle standard is being made to more closely align with the international standard adopted by the United Nations Economic Commission for Europe (UNECE). This is expected to maintain Australia's road safety performance and lead to savings for both business and government in the long term. Unique Australian requirements have been removed where they were found to be no longer relevant, or where they can now be addressed by reference to international standards instead.

The international standard UNECE Regulation 13 has been recognised as a full equivalent for vehicles other than those used in road trains. Limits have been introduced for unladen braking compatibility performance in line with Regulation 13, 24 volt antilock systems have been recognised and outdated emergency skid limit requirements have been deleted. A number of changes have also been made to simplify the required testing.

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Overall, the new vehicle standard will provide for better compatibility between heavy vehicles in unladen braking performance and in their anti-lock systems, while offering improvements in the testing regime.

Table 1 details the differences between the new vehicle standard and the replaced vehicle standard.

### **3. CONSULTATION ARRANGEMENTS**

#### **3.1. General Consultation Arrangements**

It has been longstanding practice to consult widely on proposed new or amended vehicle standards. For many years there has been active collaboration between the Federal and the State/Territory Governments, as well as consultation with industry and consumer groups. Much of the consultation takes place within institutional arrangements established for this purpose. The analysis and documentation prepared in a particular case, and the bodies consulted, depend on the degree of impact the new or amended standard is expected to have on industry or road users.

Depending on the nature of the proposed changes, consultation could involve the Technical Liaison Group (TLG), Transport Agencies Chief Executives (TACE), and the Australian Transport Council (ATC).

- TLG consists of representatives of government (Australian and State/Territory), the manufacturing and operational arms of the industry (including organisations such as the Federal Chamber of Automotive Industries and the Australian Trucking Association) and of representative organisations of consumers and road users (particularly through the Australian Automobile Association).
- TACE consists of the chief executives of Australian and State/Territory departments of transport and road vehicle administrations.
- ATC consists of the Australian, State/Territory and New Zealand ministers with responsibility for transport issues.

Editorial changes and changes to correct errors are processed by the Department of Transport and Regional Services. This approach is only used where the amendments do not vary the intent of the vehicle standard.

New standards, or significant changes that increase the stringency of existing standards, are subject to a vote by ATC Ministers. Unless disapproved by a majority of ATC Ministers, the Minister for Local Government, Territories and Roads, can then determine the new or amended standards, under the authority of the Minister for Transport and Regional Services. Proposals that are regarded as significant need to be supported by a Regulation Impact Statement meeting the requirements of the Office of Best Practice Regulation as published in the *Best Practice Regulation Handbook*.

#### **3.2. Specific Consultation Arrangements for this Vehicle Standard**

A Single Issues Working Group (SIWG) was established from TLG members, to consider proposals under the review of this vehicle standard. A final Regulatory Impact Statement (RIS) and draft ADR were released for public comment in August 2004.

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A SIWG meeting was held in April 2005 to consider the issues raised during this period and these discussions were carried through to the TLG meetings in November 2005 and again in June 2006. At this latter meeting a SIWG sub-group was formed to resolve any outstanding details, with the results reported at the TLG meeting in October 2006. The draft ADR went to TACE in June 2006 and ATC in April 2007.

The RIS is attached at Appendix A.

**Table 1**  
**Differences between ADR 38/03 and 38/02**

Clause	Amendment
5.14.2	<u>Preferential Charging</u> – An additional option to the preferential charging of service brakes up to 0.69E is that spring brakes may release only when the service brakes can apply emergency ERC, or 0.435E.
5.13	<u>ABS</u> – recognises that brakes may not always apply equally about the centreline of the trailer when ABS is in operation.
6.5.2, 6.8, 6.9, App 2	<u>Load proportioning brake systems</u> – must meet the unladen performance curves in Fig 2 from UNECE R13 for all states between unladen and laden. Calculations may be used for intermediary values. There is a newly defined term UTM (corresponding with GTM) to cater for this. A label must give laden and unladen calibration information.  <u>Labelling of load proportioning brake systems</u> – The UNECE R13 labelling arrangement has been adopted and this is compatible with Australian practice. Examples of labels for both mechanical and air variable proportioning brake systems have been added in an Appendix.
N/A	<u>Emergency skid limit test</u> – deleted.
7.4	<u>Emergency brake release</u> – the control need no longer be in an inconspicuous position.
9.6.1	<u>Permit loads</u> - allows higher vehicle test masses to provide optional results for state and territory permit system.
15.4	<u>Actuation timing test</u> - Method for calibration of the test rig has been amended.
Table 1	<u>Table 1 axle group load limits</u> - raised for Road Friendly Suspensions (RFS).
App 1 3.2.2	<u>ABS connector</u> – allows 24V to be used.
6.4, 22.1	<u>Brake response times</u> – release times deleted except for road train vehicles where they apply to the coupling only and are extended out to 650 ms (from 550 ms). Actuation times extended out to match UNECE R13 times of 400 ms at coupling and brake chamber.
22.3	<u>Alternative standards</u> - allows the latest version of UNECE R13 without modification, other than for road train braking release times. Allows the transition to the new version of the ADR to be achieved administratively for those vehicles not fitted with variable proportioning brake systems.